CHAPTER 4 Temporary and Cumulative Impacts

4.1 TEMPORARY CONSTRUCTION IMPACTS

4.1.1 Affected Environment

The construction of the proposed project has the potential to create a number of temporary impacts in the project area. The following construction activities are considered:

4.1.1.1 Typical Construction Methodology: Roadway Surfacing and Striping

Paving would typically be accomplished by milling down and coldplaning the existing roadway surface with a grinder. The milled roadbed would then be covered with binding material and then resurfaced with asphalt concrete using paving and rolling equipment. After that, the surface would be striped.

4.1.1.2 Typical Construction Methodology: Shoulder Width Standardization, Right and Left-Turn Lanes, Standardization of Intersections

Substandard shoulder sections would typically be excavated from the edge of the travel way, removed, and a new shoulder would be constructed to accommodate the additional shoulder width. Fill would be compacted and the shoulder resurfaced. Shoulder backing would be prepared to protect the external edge of the new shoulder.

4.1.1.3 Typical Construction Methodology: Signalization

A concrete saw and jackhammer would typically be used to expose areas for excavation to allow placement of conduit to extend power to the signals. A backhoe or excavator would be used to dig the trenches. Repaving would be similar to the methods described for roadway rehabilitation.

4.1.1.4 Typical Construction Methodology: Bus Pads

Portland cement concrete surface rather than asphalt concrete would be applied to the subbase material in the bus pad locations. This is required to provide additional stability to accommodate the additional weight of the mass transit vehicles.

4.1.1.5 Typical Construction Methodology: Box Culvert Improvement

In accessing the creeks in the project area, a temporary partial or full diversion of water would be required to allow access and ensure that sensitive aquatic species are not present during construction. This would be accomplished either through piping the water around the work site, or through blocking one portion of the channel at a time.

Because the roadway would need to remain open during construction, the construction methods would likely include working on half of the bridge replacement at a time. Some areas, such as Blucher Creek, include an adjacent frontage road that may serve as a detour route during construction to allow full road closure at the construction site.

At Blucher Creek, a clearspan bridge would likely use precast or steel beam girders to avoid placing falsework within the existing creek. To remove the existing box culverts, the existing roadway would be broken up and the culvert lifted with a crane situated on the roadway.

4.1.1.6 Typical Construction Methodology: Cross Culverts and Ditches

Backhoe and excavation equipment would excavate the existing cross culvert locations to create an open trench. Lane closures would be required for daytime work. This would likely require work to be conducted at night. If it is not possible to finish in one night, open trenches would be covered with steel plates at the end of each work day.

4.1.2 Project Impacts

Potential impacts include the following:

- Traffic interruptions and longer travel times
- Temporary traffic detours
- Limited access to businesses and driveways during daytime operations
- Equipment noise
- Dust as a result of excavation, fill stockpiling, and grinding
- Interrupted or limited access for pedestrians and cyclists
- Increased construction-vehicle traffic
- Visual effects of construction activities
- Construction-related night lighting impacts to on- and off-road viewers

4.1.3 Avoidance, Minimization and/or Mitigation Measures

Caltrans would implement temporary detour plans with adequate signing and the California Highway Patrol's Construction Zone Enhanced Enforcement Program or local police for traffic control and handling. Detour plans would address the needs of bicyclists and pedestrians as well as of motor traffic. In situations where a detour is not possible, a flagman would control motor traffic and pedestrian and bicycle access. Detours would also provide alternative routes for emergency access. Where sectional temporary barriers are used, adequate openings will be provided for maneuvering by emergency vehicles.

In commercial areas, Caltrans may conduct construction activities at night (11 PM – 5 AM) to eliminate impacts on the local business. Caltrans may implement special provisions for noise reduction during these times, as appropriate.

Construction lighting would be limited to within the area of work and light trespass would be avoided through directional lighting, shielding, and similar measures. Unsightly material and equipment storage and staging would be visually screened or otherwise not be visible within the foreground of the highway.

Vacuuming, sweeping, watering trucks and plastic sheeting would be used to contain dust. Construction pollution prevention measures would be implemented to reduce other related impacts; please see Water Quality/Stormwater Runoff, section 3.1.

4.2 CUMULATIVE IMPACTS

4.2.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, §15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in §15355 of the CEQA Guidelines. A definition of cumulative impacts, under CEQA, can be found in 40 CFR, §1508.7 of the CEQA Regulations.

Regulations for the implementation of §7 of the Endangered Species Act require the federal action agency to provide an analysis of cumulative effects, along with other information, when requesting initiation of formal consultation. Additionally, the Services are required to consider cumulative effects in formulating their biological opinions (50 CFR §402.14(g)(3) and (4); NARA 2002). Cumulative effects include the effects of future state, tribal, local or private actions that are reasonably certain to occur in the action area.

Data for cumulative impacts for this study were obtained from the County of Sonoma and the City of Sebastopol, and through review of environmental documents for local projects archived by Caltrans.

4.2.2 Affected Environment

Large-scale construction projects in the vicinity of the proposed project include the Cotati Commons commercial/residential complex in Cotati, which as of the date of this document is partially completed, and the Laguna Vista residential development of 200 residential units plus 16,300 square feet of commercial space in eastern Sebastopol. Plans for Laguna Vista are currently under revision and may result in a smaller project. In the City of Rohnert Park, environmental documents have been prepared for a large casino owned by the Federated Indians of Graton Rancheria and operated by Station Casinos of Las Vegas, and for a "Stadium Area Master Plan" by the City of Rohnert Park, in preparation for the planning of a commercial area and high-density housing. The City of Sebastopol is also preparing a Northeast Area Specific Plan for Sebastopol's 54-acre northeast area, which is intended to guide the area's development and conservation and which will propose substantial new development. Caltrans has a large construction project, the replacement of the Laguna de Santa Rosa Bridge on SR-12 east of Sebastopol, which could reasonably be foreseen to have cumulative traffic impacts in combination with this proposed project on SR-116.

4.2.3 Impacts

4.2.3.1 General

Projects in the vicinity of the project area are almost exclusively confined within the city limits of Sebastopol, Rohnert Park, or Cotati. The proposed project is however almost exclusively within a section of rural Sonoma County that has seen practically no development in recent years. Within this area, there have been no projects to which the proposed project's potential impacts could be considered cumulatively to be added. A review of county records confirms that the only permitting activity in the project area has been centered on the waste-processing and recycling facility at 7085 Gravenstein Highway South. The kinds of impacts associated with this facility can reasonably be assumed not to be of the same kind as those associated with a roadway rehabilitation project.

4.2.3.2 Biological

Continued and persistent development pressures within the Santa Rosa Plain region have resulted in cumulative effects to the California Tiger Salamander. In the construction of the Cotati Commons project, large areas of high-quality local CTS habitat, including breeding ponds, were lost. The proposed project would contribute by affecting approximately 2.70 hectares to 2.52 hectares (6.23 acres) over the 12.9 kilometers (8.0 mi) stretch of existing roadway.

Because of the extremely limited distribution of the CFWS and the persistent development pressure within its range, projects with even minor effects may contribute cumulatively to the demise of this species. The same is true of four listed plant species known in the Santa Rosa Plain: Sonoma sunshine, Burke's goldfields, Sebastopol meadowfoam, and many-flowered navarretia.

Because of the broad distribution of activities that have had or will have adverse impacts on the biological resources identified here, there are effective regulatory requirements in place to prevent impacts. The Santa Rosa Plain Habitat Conservation plan requires this and similar projects to compensate for effects to CTS habitat at a 2:1 or 1:1 ratio, or purchases at a 0.2:1 ratio. The

additional habitat lost as a result of Caltrans's proposed project is insignificant, as it consists of narrow strips of land along driveways and roadway verges. Caltrans takes the long view in identifying means to prevent the project from contributing to any cumulatively significant impacts, such as compensating for marginal habitat lost by the purchase of high-quality, secured habitat at nearby compensation banks.

The proposed project would not bisect or isolate existing populations of listed species or prevent migration or dispersal of the species beyond the existing conditions in the project limits. The proposed project would result in an incremental increase in the amount of disturbed lands located directly adjacent to a heavily used highway. Through implementation of avoidance and minimization measures, compensation for direct effects, including creation and preservation of suitable habitat for the species in perpetuity, the cumulative effects to listed species from the proposed project are expected to be minimal.

Although there are small areas of direct and indirect effects to currently suitable and restorable suitable habitat for rare plants in the project area, and there is one area of currently suitable habitat that was not surveyed pursuant to the two-year survey protocols for the listed plant species, the botanical significance of the project area is subjectively rated as low in both local and regional contexts, based on the lack of special-status plants and the lack of high quality habitat for special-status plants, compared to what is found in the local and regional vicinities of the project area. The project area is located along an existing well-traveled roadway and has been highly disturbed in most areas by disking and grading and other activities. The proposed project (incorporating avoidance, minimization, and compensation) will not have substantial cumulative adverse effects on the four federally-listed rare plant species.

The Graton Rancheria EIS proposes possible mitigation for expected traffic impacts which include modifications to the SR-116/Stony Point Road intersection in the project area. This area has been designated critical habitat for the CTS.

4.2.3.3 Traffic

Caltrans has a project that proposes to replace the Laguna de Santa Rosa Bridge on SR-12 east of Sebastopol. This project is scheduled to go to construction in 2010, approximately the same time as the proposed project. In order not to extraordinarily restrict access to Sebastopol from the east, Caltrans would stage the projects so that one does not conflict with the other.

The proposed project is not a capacity-increasing one. For that reason, it will not contribute to possible cumulative traffic effects from other projects in the area.

4.2.4 Avoidance, Minimization and/or Mitigation Measures

None proposed.

CHAPTER 5 Relationship Between the National Environmental Policy Act (NEPA) and CEQA

This combined environmental document complies with National Environmental Policy Act (NEPA) requirements for the preparation of an Environmental Assessment (EA), and with CEQA requirements for an Inital Study (IS). Use of the term "significant" differs under these two laws. CEQA requires that an IS include a determination of no significant impacts, while under NEPA, an EA is prepared to determine whether a project will have a significant impact on the environment and, if no unmitigable significant impact would occur—the situation that has been found to prevail for the Sonoma-116 Roadway Rehabilitation Project—then a Finding of No Significant Impact (FONSI) is made. Given these differences, the CEQA significance criteria and the determination of significant impacts have not been specifically addressed in other sections of this combined NEPA/CEQA EA/IS. These criteria and determinations are grouped for discussion in this chapter.

It should be noted that although the presence of mitigation creates a presumption of significant impacts under CEQA, NEPA encourages mitigation for all of the impacts of a project. For this reason, some mitigation measures described in this document are wholly appropriate under NEPA, although the impacts they address may not be considered significant under CEQA.

CHAPTER 6 Coordination

Periodically during the past three years, the project manager brought Division of Design and Division of Environmental Planning and Engineering teams to meetings with interested local agencies, including SCTA, SCT, BikeSonoma, the City of Sebastopol Planning Department and Public Works Department, and the City of Cotati City Engineer.

Caltrans Environmental and Design staff held a field visit in 2007 with the Sonoma County Public Works Department, Sonoma County Permit and Resource Management, and the City of Sebastopol Planning Department.

The Office of Cultural Resources has conducted ongoing native American consultation and consultation with SHPO, and contacted potentially interested parties including the Western Sonoma County Historical Society.

The Office of Biological Sciences and Permitting has ongoing consultations with the US Fish and Wildlife Service, the California Department of Fish and Game, and NOAA Fisheries.

The Office of Water Quality has consulted with the Regional Water Quality Control Board.

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CHAPTER 8 Distribution List

Federal Elected Officials

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Honorable Barbara Boxer, United States Senator

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State Elected Officials

Honorable Patty Berg, California Assembly, 1st District

Honorable Jared Huffman, California Assembly, 6th District

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Local Elected Officials

Mr. Mike Reilley, Board of Supervisors, Sonoma County

Mr. Mike Kern, Board of Supervisors, Sonoma County

Mayor Geoff Fox, City of Cotati

Mayor Larry Robinson, City of Sebastopol

City of Cotati City Council

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Federal Agencies

Environmental Protection Agency, Office of Federal Activities

National Marine Fisheries Service

US Army Corps of Engineers Regulatory Branch San Francisco District

US Department of Agriculture Natural Resoruces Conservation Service

US Department of Interior Office of Environmental Policy and Compliance

US Environmental Protection Agency Region 9, NEPA Review Federal Activities Office

US Fish and Wildlife Service, US Department of Interior

State Agencies

California Department of Fish and Game Fisheries, Wildlife, and Environmental Programs

California Energy Commission

California Highway Patrol, Office of Special Projects

California State Lands Commission

Office of Historic Preservation

Public Utilities Commission

California Department of Conservation, Division Of Land Resource Protection

Regional Agencies

Association of Bay Area Governments

Metropolitan Transportation Commission

Regional Water Quality Control Board North Coast Region

Local Agencies

Sonoma County County Administrator

Sonoma County Transportation Authority

Sonoma County Bicycle Coalition

Sonoma County Transportation and Public Works

Sonoma County Permit and Resource Management Department

City of Cotati Planning Department

City of Cotati City Engineer

City of Sebastopol Planning Department

City of Sebastopol City Engineer